

second higher sealing temperature, forms a permanent bond, characterized in that [at least one] the sealing layer has a matrix phase polymer system, whereby the matrix polymer is a polyethylene homopolymer, a polyethylene copolymer, a polypropylene homopolymer, or a polypropylene copolymer and the phase polymer is a styrene ethylene/butylene styrene triblock polymer with a styrene ethylene/butylene diblock component, a styrene ethylene/propylene styrene triblock polymer, a styrene butadiene styrene triblock polymer, and/or a styrene isoprene styrene triblock polymer.

6. (Twice amended) The multilayer film according to Claim 1, 2, 3, 4 or 5 characterized in that the multilayer film has a gas barrier for oxygen and carbon dioxide as well as a water vapor barrier layer.

7. (Amended) A multichamber medical bag (1) made of a polymer material for preparation of medical mixed solutions, which has at least two chambers (8 and 9), which are separated from each other by a sealed separation zone (7) to be opened and are sealed in the outer border zone (2, 3), whereby in the seam of the outer border zone at least one tube (4) is provided in at least one chamber, characterized in that it is fabricated from a multilayer polymer film according to Claim 1, 2, 3, 4, 5, [6] or 6 [7].

8. (Amended) The multichamber bag according to Claim 7, characterized in that the seam is separable in the separation zone (7) with a force which is in the range from 5 to 20 N and the seam in the outer border zone (2, 3) is inseparable.